

Borescope Colour Camera with LCD Monitor



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In this operating manual / this device the following pictogram's are used:

	Read operating manual!		Danger to life and danger of accident for children!
	Observe warning- and safety guidelines!		Dispose the packaging environmentally friendly!
	Danger of explosion!		Disposing of the batteries!

Introduction

Make yourself familiar with all functions before first start-up of the equipment and gain inform you about correct handling the device.

Read for this the following operating manual carefully. Store this manual carefully. Pass on all documents also when passing on the device to third parties.

**Intended use**

The Borescope is intended for use in inspecting difficult access areas of vehicles, at home and in the workshop. It is exclusively certified for the private use. All other use or change to the device is considered as not intended and bears substantial dangers.

The manufacturer does not take over any liability for damages arising from unintended use.

Scope of delivery

After unpacking immediately check the scope of delivery. Examine the device and all parts for damages. Do not take a defective device or part into operation.

1x Display unit

1x Gooseneck

1x Instruction Manual

Technical data**Display unit**

Power supply: 4 x 1.5V (AA battery)

Display: 3.5" TFT LCD, 6 step brightness

Resolution: 320 x 240 pixel

Working temperature: 0°C to 40°C

Storage temperature: -10°C to 50°C

Technical data**Gooseneck camera**

Camera: CMOS sensor

Resolution: 320 x 240 pixel

Exposure : 30 to 80 mm

White balance: automatic

Distortion: <3.7%

Field of view: 54°

Power consumption: 1.8 bis 2.6 W

Protection class: IP 67

Camera diameter: 5.5 mm

Gooseneck length: approx. 100 cm

Housing material: aluminum

Working temperature: -20°C to 60°C

Storage temperature: -20°C to 70°C

Relative humidity: 15% to 85%

Technical data**LED Light**

Light source: 4x LED

Brightness: 6-step adjustable

Safety

Warning! Read all safety guidelines and instructions.

Omissions regarding the compliance to safety guidelines and instructions can cause electrical shock, fire and / or serious injuries.

Keep all safety guidelines and instructions for future reference.

Danger of accident and life for infants and children!

Never leave children unsupervised with the packing material. There is danger of suffocation. This device is not intended for use by persons (including children) with reduced physical, sensory or mental abilities or lack of experience and / or lack of knowledge unless they are supervised by a person responsible for their security or received instructions from this person, how the equipment is to be used. Children should be supervised, in order to guarantee that they do not play with the device.



DANGER TO LIFE!

DANGER! Batteries can be swallowed causing danger to life.
If a battery is swallowed, seek immediate medical assistance.
Do not use this unit if it is damaged.

Do not expose this unit to

- extreme temperatures,
- strong vibrations,
- strong mechanical stresses,
- direct sunlight,
- moisture.



Failure to observe this notice can result in damage to the unit.

Note that damage caused by improper use, non-observance of the operating instructions or interference by non-authorised people will invalidate the guarantee.

Do not in any circumstances take this unit to pieces. Extreme danger can be caused by improper attempts to repair the unit.

Repairs should only be carried out by qualified personnel.

Do not use the Borescope if condensation has built up within the camera lens.

Please wait until this has evaporated before use..

Battery Safety Note

Remove the battery from the unit if you do not intend to use it over a lengthy period of time.

**CAUTION! DANGER of EXPLOSION!**

Never attempt to recharge these batteries!

Make sure you observe the correct battery polarity! This is displayed within the battery compartment.

Clean the batteries and contacts before installation if necessary.

Remove empty batteries from the unit immediately because they can leak!

Do not dispose of batteries in the household refuse!



All battery users are legally required to dispose of batteries in the proper manner!

Keep the batteries away from children and do not expose them to naked flames. Do not attempt to short-circuit them and do not take them to pieces.

Non-observance of these guidelines can cause the batteries to lose their charge. This can lead to the danger of battery leakage.

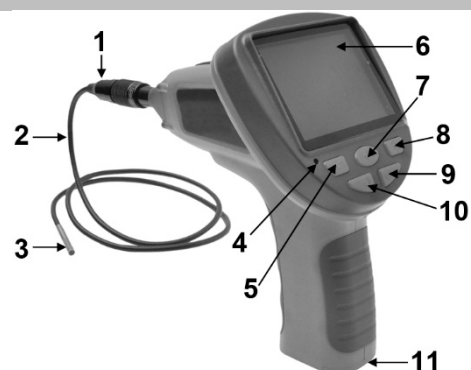
If the batteries in your unit have begun to leak, remove them immediately as this could lead to damage of the unit itself!

Avoid contact with the skin, eyes and mucous membranes. If you do come into contact with battery acid, wash off with lots of water and / or seek medical assistance immediately!

Change all batteries simultaneously and only use batteries of the same type..

Component description

- 1 Plug / Connector
- 2 Gooseneck
- 3 Camera & LED Light
- 4 Power LED
- 5 LED Brightness
- 6 3,5" TFT LC-Display
- 7 On / Off
- 8 LCD Brightness
- 9 Color / Black-White
- 10 Rotate Display 90°-180°-270°-360°
- 11 Battery Compartment 4x 1.5V AA



Install / exchange batteries

The batteries are located at the bottom of the handle

Loosen the screw on the battery compartment lid using a cross-head screwdriver.

Push the battery compartment lid away from the casing in the screw direction.

Remove the battery compartment.

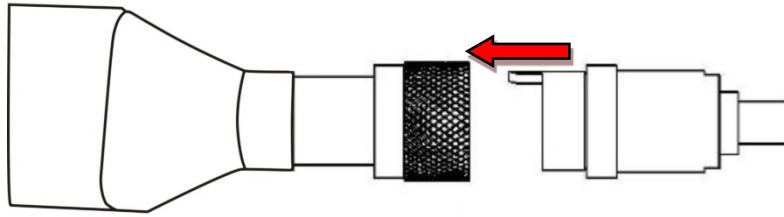
Install 4 new batteries of type 1.5 V AA into the battery compartment (Remove the used batteries first).

Observe the correct battery polarity. This is displayed within the battery compartment.

Replace the battery compartment into the casing in the correct direction, and then replace the battery compartment lid.

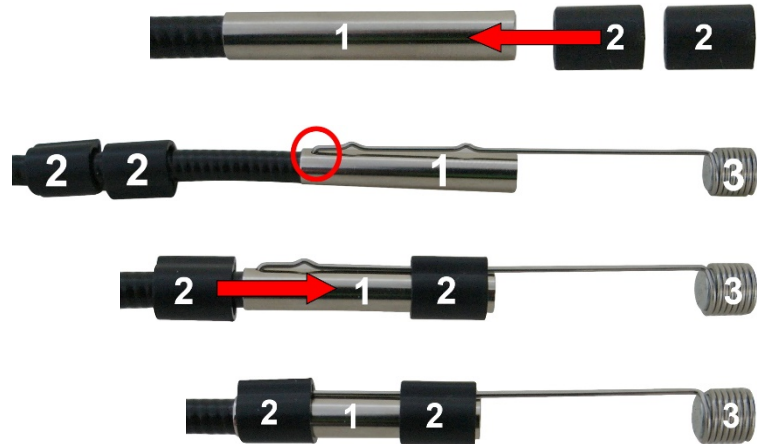
Mounting the gooseneck

Slide the guide pin of the gooseneck into the groove in the plug and fasten the gooseneck at the device.



Accessory assembling

- 1 Camera
- 2 Retaining sleeve
- 3 Accessory, e.g. Magnet



Using the Borescope

1. To switch the Borescope on, use the „On / Off“ button. The Power LED will light up and shows that the unit is functional. The LCD display displays the camera image. To switch the Borescope off, use the On / Off button. The Power LED will be switched off and the LCD display will also be switched off.
2. Set the image brightness to the desired level by pressing the „LCD Brightness“ button. The brightness level 0 to 30 is shown in the display. Each time the "LCD Brightness" button is pressed, the brightness is set one step higher and then jumped to the lowest brightness level 0 after the highest brightness level 30 is reached, etc.
3. Set the desired brightness of the camera illumination by pressing the "LED Brightness" button. The brightness of the LED camera illumination is adjustable in 6 steps.
4. The "Color / Black-White" button can be used to switch between color or black-white display.
5. Place the flexible gooseneck into the area to be examined. Make sure that the gooseneck is always easy to manoeuvre. You can move the gooseneck in every conceivable direction, making it possible to examine areas that would otherwise be difficult to access.

Maintenance / Care / Service

Clean the device with a dry cloth.

Do not use solvents or other aggressive detergents under any circumstances.

Warning! Leave the repair of the device to qualified technical personnel to repair.

Thus the safety of the device is guaranteed and maintained.

Warning! Leave the exchange of the plug or the connecting cable always to qualified technical personnel.

Thus the security of the equipment is guaranteed and maintained.

This product complies with the RoHS Directive 2011/65/EU **RoHS**

ENVIRONMENTAL PROTECTION

Recycle unwanted materials instead of disposing of them as waste. All tools, accessories and packaging should be sorted, taken to a recycling centre and disposed of in a manner which is compatible with the environment.



DISPOSAL

Do not dispose battery in household waste. Batteries should be disposed of in a responsible manner, they must be disposed at appropriate collection point. Dispose of this product at the end of its working life in compliance with the EU Directive on Waste Electrical and Electronic Equipment. Contact your local solid waste authority for recycling information or give the product for disposal to BGS technic KG or to an electrical appliances retailer.

